

**REMARKS**

Claims 1-5 are pending in the present application. Claims 6-11 are withdrawn from consideration. Claim 4 is herein amended to recite that *the unique volume level Dvol[j] is set at a value obtained by subtracting the Doffset from the transmitted Dcom [j]*. Support for this amendment is found, for example, on page 15, lines 14-15 of the Specification. No new matter has been entered.

It is respectfully submitted that this Amendment is fully responsive to the Office Action dated April 9 2007.

**Claim Rejections - 35 U.S.C. §112**

Claim 5 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The

Examiner remarks:

Claim 5 recites "The electronic volume device as claimed in any one of claims 1 to 4 wherein the electronic volume device conducts radio communications with the remote controller according to a communication procedure complying with a Blue tooth standard." The examiner asserts that the radio communication system conducts radio communication complying with a Bluetooth standard, not the electronic volume device (page 9, lines 10-22; Figures 1 and 2). The examiner has interpreted the claim as the radio communications system conducts radio communication with the remote controller.

However, Applicants respectfully disagree with the Examiner's position regarding claim 5. Claim 5 is definite and fully supported by the specification in its present form. Accordingly, Applicants request that the Examiner withdraw the §112 rejection of claim 5.

**Claim Rejections - 35 USC §103**

Claims 1 and 3 were rejected under 35 U.S.C. 103(a) as unpatentable over *Tonella* (US 5,883,963) in view of *Hermann* (US 6,360,187).

Applicants respectfully disagree with the Examiner's obviousness rejection of claim 1.

Applicants submit that *Hermann* discloses a technology in which the reproduction sound level of high priority messages such as navigation instructions, parking aid signals, and back-up warning signals is controlled based on the average ambient sound level. A sound level calibration table stores information used for controlling a gain controller to ensure that the high priority messages as described above are reproduced at a sound level which is relatively greater than an ambient noise level. In other words, the priority in *Hermann* is in making the sound level of the messages such as the navigation instructions, the parking aid signal, and the back-up warning signals greater than the sound level of other messages.

Applicants submit that in *Tonella*, when a user enters a volume level and switches a loudness effect on and off, a total attenuating value corresponding to the volume level is obtained; then a first attenuation value to be assigned to a volume-control unit and a second attenuation value to be assigned to a loudness-control unit are obtained respectively; and the individual attenuation values are notified to the volume-control unit and the loudness-control unit respectively. In this case, a sum of the first and second attenuation values equals to the total attenuating value. The volume-control unit attenuates an audio signal by the first attenuation value. The loudness-control unit attenuates every component of the audio signal by the second attenuation value when the loudness effect is turned off, and attenuates only high-frequency

components of the audio signal by the second attenuation value when the loudness effect is turned on.

Applicants submit that *Hermann* does not disclose that an adjusting means adjusts the  $Dvol[j]$  on a **higher priority** than the  $Doffset$ . Instead, as explained above, *Hermann* discloses a system in which a “programmable gain for the high priority message is determined using a sound level calibration table.” See col. 3, lines 8-67. Also, *Hermann* only discusses priority in relation to noise levels (e.g., a high priority message is heard at a higher sound level than the ambient sound level) and not in relation to volume levels and offset values. Applicants submit that neither reference discusses adjusting  $Dvol$  on a higher priority than  $Doffset$  *so that the electronic volume device can immediately increase or decrease the volume*.

Applicants submit that *Tonella* does not disclose *a means for converting received  $Dcom[i]$  into a j-th unique volume level  $Dvol[j]$  on a unique scale of M steps ( $M < N$ )*. *Tonella* is silent with regards to this feature. See, e.g., col. 3, lines 27-30 and Fig. 1.

Thus, a prima facie case of obviousness has not been presented because the proposed combination does not teach or suggest all elements of the claimed invention.

Furthermore, even if one were to modify *Tonella* to incorporate the features discussed in *Hermann*, the result would not be the claimed invention. For example, as discussed above, *Tonella* relates to a system that enables a user to set a desired volume level and to switch a loudness effect on or off. Therefore, the resultant modification, for example, would be a system that increases the volume of “high priority” sources selected by a user.

Accordingly, Applicants request that the Examiner withdraw the obviousness rejection of claim 1.

Applicants disagree with the Examiner's obviousness rejection of dependent claim 3. The combination of *Tonella* and *Hermann* does not teach or suggest that *when the common volume level Dcom[i] transmitted from the remote controller is a predetermined mute level, a present offset value Doffset is saved and the common volume level Dcom[j] is decreased to a predetermined level*. The Examiner remarked that "column 3, lines 4-11 discloses that the input unit 150 enables a user to switch a loudness effect on or off and off would read on mute and decreasing the volume level; column 4, lines 40-66)." However, turning the loudness off and decreasing the volume level is not equivalent to a "mute level". Furthermore, the reference does not teach that a present offset value is saved. Therefore, if the user were to turn up the volume (after "muting" it), then the system would not recall the preset offset value.

Claim 2 was rejected under 35 U.S.C. 103(a) as unpatentable over *Tonella* (US 5,883,963) in view of *Hermann* (US 6,360,187) in further view of *Turnbull et al.* (US 6,980,092). However, claim 2 depends from claim 1 and is allowable for the reasons discussed above.

Claim 5 was rejected under 35 U.S.C. 103(a) as unpatentable over *Tonella* (US 5,883,963) in view of *Hermann* (US 6,360,187) in further view of *Mayuzumi* (US 2002/0052182). However, claim 5 depends from claim 1 is allowable for the reasons discussed above.

In view of the above remarks, Applicants request that the obviousness rejection of claim 1 be withdrawn. Further, Applicants request that the rejections of claims 2-5, which depend from independent claim 1, also be withdrawn.

**Conclusion**

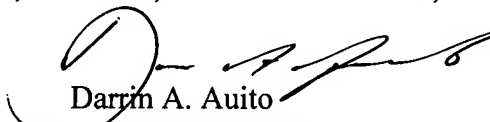
In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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